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10/788,808	02/27/2004	John Wade	200208190-1	7851

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EXAMINER	
GOLDBERG, BRIAN J	

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/788,808	WADE ET AL.	
	Examiner	Art Unit	
	Brian Goldberg	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,7-19,22-27,30 and 31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,7-19,22-27,30 and 31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 5, 7, 10-12, 15-18, 22, 24-26, 27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders et al. in view of *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

3. Regarding claims 1 and 7, Saunders et al. disclose "a first set of N memory elements (40 of Fig 8) serially receiving a series of fire enable values (PE of Fig 8), each fire enable value including one of an enabling value or a disabling value; a second set of N memory elements (34 of Fig 8), serially receiving N image data sub-blocks of an image data block, each image data sub-block including one of an enabling value or a disabling value (col 4 ln 47-61)...and N fluid ejecting elements (31 of Fig 3), each receiving the fire enable value from a corresponding one of the first set of N memory elements (see Fig 3) and the image data sub-block from a corresponding one of the...N memory elements, wherein one of the fluid ejecting element is enabled to eject a fluid when the fire enable value and the image data sub-block each are the enabling value (col 5 ln 5-21, 34-45)" as well as each set of N memory elements "comprise a shift register having N memory elements (34 and 40 of Fig 8)." Saunders et al. also disclose receiving data in parallel (col 5 ln 20-45). Thus Saunders et al. meet the claimed

invention except "a third set of N memory elements receiving...the N image data sub-blocks from the second set of N memory elements." *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) addresses duplicating a part for a multiple effect. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to duplicate the set of memory elements set forth above by Saunders et al. in claim 1. One would have been motivated to so modify Saunders et al. for the benefit of making the memory more robust by allowing it to store more data and therefore operate more quickly.

4. Regarding claim 5, Saunders et al. disclose "wherein the image data block comprises a row of image data and each image data sub-block comprises a bit of image data (col 6 ln 49-50)."

5. Regarding claim 10, Saunders et al. disclose "each of the N fluid ejecting elements (31, 32 of Fig 3) is configured to receive upon each cycle of a clock (37 of Fig 6) the image data sub-block from the corresponding one of the third set of N memory elements (col 5 ln 34-45)."

6. Regarding claim 11, Saunders et al. disclose "the one of the fluid ejecting element is not enabled to eject the fluid when one of the fire enable value or the image data sub-block is the disabling value (col 5 ln 34-45)."

7. Regarding claim 12, Saunders et al. disclose "the N fluid ejecting elements (31 of Fig 3) are configured to print a block of image data in a print cycle, and wherein the first set of N memory elements (40 of Fig 8) is configured to serially receive in the print cycle a series of fire enable values representative of a fire enable pulse, and wherein the first

set of N memory elements receives a fire enable value (PE of Fig 8) upon each cycle of the clock (37 of Fig 7), with a first fire enable value of the series being received upon a first clock cycle of the print cycle and a last fire enable value of the series being received upon a last clock cycle of the print cycle (col 5 ln 34-45)."

8. Regarding claim 15, Saunders et al. disclose "a logic element (48 of Fig 4A and Fig 5) configured to receive the fire enable value (PE of Fig 8) from the corresponding one of the first set of N memory elements (40 of Fig 3) and the image data sub-block from the corresponding one of the third set of N memory elements, and to provide a power switch control signal having a first state when the fire enable value and the image data sub-block each are the enabling value (col 5 ln 26-45); a heater resistor (44 of Fig 4A) having a first terminal connectable to a power source (24 of Fig 4A) and a second terminal; a switch (46 of Fig 4A) coupled between the second terminal of the heater resistor and ground (26 of Fig 4A), the switch configured to receive the power switch control signal (48 of Fig 4A), and connect the second terminal of the heater resistor to ground when the switch control signal has the first state (see Fig 4A)."

9. Regarding claim 16, Saunders et al. disclose "a field effect transistor (46 of Fig 4A) having a gate coupled to the logic element (48 of Fig 4A), a drain coupled to the second terminal of the heater resistor (44 of Fig 4A), and a source coupled to ground (26 of Fig 4A)."

10. Regarding claim 17, Saunders et al. disclose "an AND-gate (48 of Fig 4A) having a first input coupled to the corresponding one of the first set of N memory elements (40, PE of Fig 8), a second input coupled to the corresponding one of the third set of N

memory elements (34, A of Fig 8), and an output providing the power switch (46 of Fig 4A) control signal."

11. Regarding claim 18, Saunders et al. disclose "a fire enable register including a series of N memory elements (40 of Fig 8) configured to serially receive and serially transfer a series of fire enable values (PE of Fig 8) through the series of N memory elements; a data input register including a first set of N memory elements (34 of Fig 8), configured to serially receive N image data bits of a row of image data (col 4 ln 47-61, col 6 ln 49-50);...configured to receive in parallel the N image data bits from the first set of N memory elements (col 4 ln 47-61, col 5 ln 20-45, col 6 ln 49-50); and N fluid ejecting elements (31 of Fig 3) each coupled to and configured to receive one of the fire enable values from a different one of the series of N memory elements, and coupled to and configured to receive one of the image data bits..., wherein each fluid ejecting element is enabled to eject a fluid when the one of the fire enable values and the image data bit each are an enabling value (col 4 ln 47-61, col 5 ln 5-21, 34-45)." Thus Saunders et al. meet the claimed invention except "a data hold register including a second set of N memory elements." *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) addresses duplicating a part for a multiple effect. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to duplicate the set of memory elements set forth above by Saunders et al. in claim 18. One would have been motivated to so modify Saunders et al. for the benefit of making the memory more robust by allowing it to store more data and therefore operate more quickly.

12. Regarding claim 22, Saunders et al. disclose "the series of N memory elements and the first and second set of N memory elements (34 and 40 of Fig 8) each comprise a shift register having N memory elements (36 of Fig 6, 42 of Fig 7)."

13. Regarding claim 24, Saunders et al. disclose "each of the N fluid ejecting elements (31 of Fig 3) corresponds to a different one of the N memory elements (42 of Fig 7) of the second set of N memory elements and is configured to receive upon each cycle of a clock (37 of Fig 7) the image data bit from a corresponding one of the N memory elements, wherein the fluid ejecting element does not eject fluid when either the one of the fire enable values or the image data bit is the disabling value (col 5 ln 34-45)."

14. Regarding claim 25, Saunders et al. disclose "the N fluid ejecting elements (31 of Fig 3) are configured to print the row of image data in a print cycle (col 6 ln 49-50).

15. Regarding claim 26, Saunders et al. disclose "the series of N memory elements (32 of Fig 3) is configured to serially receive during the print cycle a fire enable pulse comprising a series of the fire enable values (PE of Fig 8), wherein the series of N memory elements receives one fire enable value of the series upon each cycle of the clock (37 of Fig 7, col 5 ln 34-45).

16. Regarding claim 27, Saunders et al. disclose "serially receiving image data values in each of N memory elements ..., each memory element ... corresponding to a different one of N memory elements of an image data hold register (36 of Fig 6, 34 of Fig 8); parallel shifting the image data values from the N memory elements of the image data input register (col 5 ln 20-45) to the N memory elements of the image data hold

register and holding the image data values in the N memory elements of the image data hold register (col 5 ln 5-21, ln 34-45), each memory element of the image data hold register corresponding to a different one of the N fluid ejecting elements (31 of Fig 3), each image data value being one of an enabling value or a disabling value (col 4 ln 47-61, col 6 ln 49-50); serially receiving fire enable values (PE of Fig 8) in each of N memory elements (42 of Fig 7) of a fire enable shift register (40 of Fig 8), each memory element of the fire enable shift register corresponding to a different one of the N fluid ejecting elements (31 of Fig 3), each fire enable value being one of an enabling value or a disabling value (col 5 ln 5-21); updating the fire enable value in each of the N memory elements of the fire enable shift register with a fire enable value from an adjacent memory element upon each cycle of a clock (37 of Fig 7, col 5 ln 34-45); and upon each cycle of the clock, providing to each of the N fluid ejecting elements the fire enable value from the corresponding memory element of the fire enable shift register and the image data value from the corresponding memory element of the image data hold register, wherein a fluid ejecting element is enabled to eject a drop of fluid when the fire enable value and the image data value each are the enabling value (col 4 ln 47-61, col 5 ln 5-21, ln 34-45)." Thus Saunders et al. meet the claimed invention except "an image data input register." *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) addresses duplicating a part for a multiple effect. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to duplicate the set of memory elements set forth above by Saunders et al. in claim 27 to obtain an image data input register. One would have been motivated to so modify Saunders et al. for the

benefit of making the memory more robust by allowing it to store more data and therefore operate more quickly.

17. Regarding claim 30, Saunders et al. further disclose "receiving serially in a print cycle at the fire enable shift register (40 of Fig 8) a series of fire enable values (PE of Fig 8) representative of a fire enable pulse, wherein the fire enable shift register receives a fire enable value upon each clock cycle (37 of Fig 7) of the print cycle with a first enable value of the series being received upon a first clock cycle of the print cycle and a last fire enable value of the series being received upon a last clock cycle of the print cycle (col 5 ln 34-45)."

18. Claims 1-3, 10-14, 18, 19, 27, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

19. Regarding claim 1, Anderson discloses "a first set of N memory elements (102 of Fig 3) serially receiving a series of fire enable values (col 6 ln 58-62), each fire enable value including one of an enabling value or a disabling value (col 7 ln 30-45); a second set of N memory elements (202 of Fig 3), serially receiving N image data sub-blocks of an image data block, each image data sub-block including one of an enabling value or a disabling value (col 6 ln 58-62, col 7 ln 44-45)... and N fluid ejecting elements (113 of Fig 3), each receiving the fire enable value from a corresponding one of the first set of N memory elements (see Fig 3) and the image data sub-block from a corresponding one of the ... N memory elements, wherein one of the fluid ejecting elements is enabled to eject a fluid when the fire enable value and the image data sub-block each are the

enabling value (col 6 ln 58-62, col 7 ln 43-45)." Thus Anderson meets the claimed invention except "a third set of N memory elements". *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) addresses duplicating a part for a multiple effect. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to duplicate the set of memory elements set forth above by Saunders et al. in claim 1. One would have been motivated to so modify Saunders et al. for the benefit of making the memory more robust by allowing it to store more data and therefore operate more quickly.

20. Regarding claim 2, Anderson discloses "the first set of N memory elements and each of the N fluid ejecting elements are formed on a thin-film structure formed on a substrate including a non-conductive material selected from a group consisting of an oxide formed on a metal, a carbon composite material, a ceramic material, and glass see Fig 2 and col 6 ln 28-37)."

21. Regarding claim 3, Anderson discloses "the N fluid ejecting elements are configured as a row that extends substantially for a width of a page of print media (col 5 ln 60-62)."

22. Regarding claim 10, Anderson discloses "each of the N fluid ejecting elements (113 of Fig 3) is configured to receive upon each cycle of the clock (52 of Fig 3) the image data sub-block from the corresponding one of the third set of N memory elements (col 7 ln 43-45 and see Fig 3)."

23. Regarding claim 11, Anderson discloses "the one of the fluid ejecting element is not enabled to eject the fluid when one of the fire enable value or the image data sub-block is the disabling value (col 7 ln 30-42)."

24. Regarding claim 12, Anderson discloses "the N fluid ejecting elements (113 of Fig 3) are configured to print a block of image data in a print cycle, and wherein the first set of N memory elements (102 of Fig 3) is configured to serially receive in the print cycle a series of fire enable values representative of a fire enable pulse, and wherein the first set of N memory elements receives a fire enable value upon each cycle of the clock (52 of Fig 3), with a first fire enable value of the series being received upon a first clock cycle of the print cycle and a last fire enable value of the series being received upon a last clock cycle of the print cycle (col 7 ln 30-45, col 6 ln 62-65)."

25. Regarding claim 13, Anderson discloses "a first X fire enable values of the series received during a first X clock cycles of the print cycle are enabling values and a remaining N fire enable values of the series received during a remaining N clock cycles of the print cycle are disabling values such that the enabling values propagate through the first set of N memory elements in a print cycle, wherein at an end of the print cycle each of the N memory elements of the first set of N memory elements is storing the disabling value (col 6 ln 67 – col 7 ln 9, col 7 ln 30-45)."

26. Regarding claim 14, Anderson discloses "a product of X multiplied by a duration of the clock cycle substantially equals an enable pulse duration (col 7 ln 36-40)."

27. Regarding claim 18, Anderson discloses "a fire enable register including a series of N memory elements (102 of Fig 3) configured to serially receive and serially transfer

a series of fire enable values through the series of N memory elements (col 6 ln 58-62, col 7 ln 8-9); a data input register including a first set of N memory elements (202 of Fig 3) configured to serially receive N image data bits of row image data (col 6 ln 58-62, col 7 ln 43-45); ... configured to receive in parallel the N image data bits from the first set of N memory elements (col 8 ln 61-65, col 6 ln 66 - col 7 ln 1); and N fluid ejecting elements (113 of Fig 3), each coupled to and configured to receive one of the fire enable values from a different one of the series of N memory elements, and coupled to and configured to receive one of the image data bits from a different one of the second set of N memory elements, wherein each fluid ejecting element is enabled to eject a fluid when the one of the corresponding fir enable values and the one of the image data bits each are the enabling value (col 6 ln 58-62, col 7 ln 43-45, see Fig 3). Thus Anderson meets the claimed invention except "a data hold register including a second set of N memory elements." *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) addresses duplicating a part for a multiple effect. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to duplicate the set of memory elements set forth above by Saunders et al. in claim 18. One would have been motivated to so modify Saunders et al. for the benefit of making the memory more robust by allowing it to store more data and therefore operate more quickly.

28. Regarding claim 19, Anderson discloses "the series of N memory elements (102 of Fig 3) and each of the N fluid ejecting elements are formed on a thin-film structure formed on a substrate including a non-conductive material selected from a group

consisting of an oxide formed on a metal, a carbon composite material, a ceramic material, and glass (see Fig 2, col 6 ln 28-37)."

29. Regarding claim 27, Anderson discloses "serially receiving image data values in each of N memory elements ..., each memory element ... corresponding to a different one of N memory elements of an image data hold register (202 of Fig 3); parallel shifting the image data values from the N memory elements of the image data input register to the N memory elements of the image data hold register and holding the image data values in the N memory elements of the image data hold register (col 6 ln 58-62, col 7 ln 30-45), each memory element of the image data hold register corresponding to a different one of the N fluid ejecting elements (113 of Fig 3), each image data value being one of an enabling value or a disabling value (col 6 ln 58-62, col 7 ln 44-45); serially receiving fire enable values in each of N memory elements of a fire enable shift register (102 of Fig 3), each memory element of the fire enable shift register corresponding to a different one of the N fluid ejecting elements (113 of Fig 3), each fire enable value being one of an enabling value or a disabling value (col 6 ln 58-62, col 7 ln 43-45); updating the fire enable value in each of the N memory elements of the fire enable shift register from a fire enable value from an adjacent memory element upon each cycle of a clock (52 of Fig 3); upon each cycle of the clock, providing to each of the N fluid ejecting elements the fire enable value from the corresponding memory element of the fire enable shift register and the image data value from the corresponding memory element of the image data hold register, wherein the fluid ejecting element is enabled to eject a drop of fluid when the fire enable value and the image data value

each are the enabling value (col 6 ln 58-62, col 7 ln 43-45, see Fig 3)." Thus Anderson meets the claimed invention except "an image data input register." *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) addresses duplicating a part for a multiple effect. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to duplicate the set of memory elements set forth above by Anderson in claim 27 to obtain an image data input register. One would have been motivated to so modify Saunders et al. for the benefit of making the memory more robust by allowing it to store more data and therefore operate more quickly.

30. Regarding claim 30, Anderson further discloses "receiving serially in a print cycle at the fire enable shift register a series of fire enable values representative of a fire enable pulse (col 6 ln 58-62), wherein the fire enable shift register receives a fire enable value upon each clock cycle (52 of Fig 3) of the print cycle with a first enable value of the series being received upon a first clock cycle of the print cycle and a last fire enable value of the series being received upon a last clock cycle of the print cycle (col 7 ln 30-45, col 6 ln 62-65).

31. Regarding claim 31, Anderson further discloses "receiving a first X fire enable values of the series being enabling values during a first X clock cycles of the print cycle and a remaining N fire enable values of the series having a disabling value during a remaining N clock cycles of the print cycle such that the first X fire enable values being enabling values propagate through the N memory elements of the fire enable shift register in a print cycle thereby sequentially enabling each of the N fluid ejecting

elements to eject a drop of fluid for a duration substantially equal to a product of X multiplied by a duration of a clock cycle (col 6 ln 67 – col 7 ln 9, col 7 ln 30-45)."

32. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders et al. in view of *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) and further in view of Norton (US 6309040). Saunders et al. in view of *In re Harza* disclose the claimed invention as set forth above with respect to claim 1. Thus Saunders et al. in view of *In re Harza* meet the claimed invention except "the third set of N memory elements is configured to receive the image data block from the second set of N memory elements in response to a load enable signal."

33. Norton discloses "the third set of N memory elements is configured to receive the image data block from the second set of N memory elements in response to a load enable signal (206 of Fig 2, col 1 ln 45-47)." Norton discloses a load signal that transfers the image data contents of a shift register to another register. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to transfer image data from one set of memory elements to another set of memory elements in response to a load signal. One would have been motivated to so modify Saunders et al. in view of *In re Harza* for the benefit of more accurately controlling the transferring of data.

34. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders et al. in view of *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) and further in view of Anderson. Saunders et al. in view of *In re Harza* disclose the claimed invention as set forth above with respect to claim 1. Thus Saunders et al. in view of *In*

re Harza meet the claimed invention except "after the third set of N memory elements receives the N image data sub-blocks from the second set of N memory elements, the second set of N memory elements is configured to serially receive and store N image data sub-blocks of a next image data block."

35. Anderson discloses "after the third set of N memory elements receives the N image data sub-blocks from the second set of N memory elements, the second set of N memory elements is configured to serially receive and store N image data sub-blocks of a next image data block (col 8 ln 61-65, col 6 ln 66 - col 7 ln 1)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to serially receive and store N sub-blocks of a next image data block. One would have been motivated to so modify Saunders et al. in view of *In re Harza* for the benefit of streamlining the data transfer process by making it cyclical.

36. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saunders et al. in view of Norton and further in view of Anderson.

37. Saunders et al. disclose the claimed invention as set forth above with respect to claim 18 as well as "the second set of N memory elements (40 of Fig 8) corresponds to a different one of the N memory elements of the first set of N memory elements (34 of Fig 8)". Thus Saunders et al. meet the claimed invention except "wherein the second set of N memory elements is configured to receive a present row of image data from the first set of N memory elements in response to a load enable signal, and wherein the first set of N memory elements is configured to serially receive a next row of image data after providing the present row of image data to the second set of N memory elements."

38. Norton discloses "wherein the second set of N memory elements is configured to receive a present row of image data from the first set of N memory elements in response to a load enable signal (206 of Fig 2, col 1 ln 45-47)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to transfer image data from one set of memory elements to another set of memory elements in response to a load signal. One would have been motivated to so modify Saunders et al. for the benefit of more accurately controlling the transferring of data.

39. Anderson discloses "wherein the first set of N memory elements is configured to serially receive a next row of image data after providing the present row of image data to the second set of N memory elements (col 8 ln 61-65, col 6 ln 66 - col 7 ln 1)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to serially receive and store a next row of image data. One would have been motivated to so modify Saunders et al. in view of Norton for the benefit of streamlining the data transfer process by making it cyclical.

Response to Arguments

40. Applicant's arguments filed 7/12/06 have been fully considered but they are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the

objections made. Further, they do not show how the amendments avoid such references or objections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on 571-272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian Goldberg
AU 2861
October 9, 2006

Vip Patel
Supervisory Examiner
AU 2861